Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LARRY W. BURTON,
TODD D. POSTON, MARTIN F. JORDY
and MICHAEL R. SLAWSON

Appeal No. 94-0580
Application 07/738,111[1]

ON BRIEF

Before CARDILLO, HARKCOM and FLEMING, Administrative Patent Judges.

FLEMING, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1, 2, 4 through 15 and 17. Claim 17 was allowed by the Examiner and claims 1, 2, 4 through 15 are on appeal.

The claimed subject matter is directed to a communication system for providing integrated narrowband telephony and video services to subscribers. Appellants disclose in Figure 1 that a remote terminal 12 receives narrowband telephony signals from a telephone network and a group of

[1] Application for patent filed July 30, 1991.

plurality of video channels. At the remote terminal, the subscribers select the video channels from the group of plurality of video channels by channel requests from the subscribers transmitted upstream to the terminal. The subscriber selected video channels are frequency division multiplexed with the narrowband telephony signals. The multiplexed signal is then modulated and transmitted over an optical fiber to an optical network unit, ONU. In the specification, Appellants disclose that the optical network unit is adjacent to the living units of the group of subscribers. At the optical network unit, the optical fiber is connected to a demodulator to provide a demodulated multiplexed signal to a demultiplexer to provide the narrowband telephony signals and the subscriber selected video channels. These video channels and telephony signals are then distributed to the subscriber's living units via twisted pairs and coaxial cable, respectively.

Independent claims 1 and dependent claim 2 are reproduced as follows:

1. A telecommunications system for providing integrated narrowband telephony and video services to subscribers, said system comprising:

terminal means for receiving narrowband telephony signals from a telephone network and a plurality of video channels;

multiplexing means, connected to said terminal means, for frequency division multiplexing the narrowband telephony

signals with the video channels and for providing a multiplexed output signal;

modulating means, connected to said multiplexing means to receive said multiplexed output signal, for modulating an optical carrier with the multiplexed output signal;

an optical fiber connected to the modulating means for transmitting the modulated optical carrier;

demodulating means connected to the optical fiber for receiving the modulated optical carrier and for demodulating the carrier to provide a demodulated multiplexed signal;

demultiplexing means for demultiplexing the demodulated multiplexed signal to provide the narrowband telephony signals and the video channels; and

distributing means for distributing the narrowband telephony signals and the video channels to subscribers.

2. A telecommunications system as described in claim 1, wherein the terminal means includes a video channel switching means for selecting video channels to be provided to the multiplexing means, whereby the narrowband telephony signals are frequency division multiplexed with selected video channels.

The references relied on by the Examiner are as follows:

Schussler	4,441,180	Apr. 03, 1984
Gavrilovich	4,685,129	Aug. 04, 1987
Fox et al (Fox)	4,709,418	Nov. 24, 1987
Andrew et al (Andrew)	4,723,237	Feb. 02, 1988
O'Connell et al (O'Connell)	4,760,442	Jul. 26, 1988
Bergmann	4,775,971	Oct. 04, 1988
Way	4,891,694	Jan. 02, 1990
Davidov et al (Davidov)	4,959,862	Sep. 25, 1990
Kuhlmann et al (Kuhlmann)	4,972,183	Nov. 20, 1990
Matt et al (Matt), European patent	0,386,482	Dec. 09, 1990

Claims 1, 2, 11 and 13 through 15 stand rejected under 35 U.S.C. 103 as being unpatentable over Schussler in view of

Andrew. Claims 1, 11, and 13 stand rejected under 35 U.S.C. 102(b) as being anticipated by Matt. Claims 2, 10, 14 and 15 stand rejected under 35 U.S.C. 103 as being unpatentable over Matt. Claims 4, 5, 6 and 10 stand rejected under 35 U.S.C. 103 as being unpatentable over Schussler, in view of Andrew, further in view of Fox and Kuhlmann, or as being unpatentable over Matt, in view of Fox and Kuhlmann. Claims 7, 8 and 9 stand rejected under 35 U.S.C. 103 as being unpatentable over Schussler, in view of Andrew, Fox and Kuhlmann further in view of O'Connell, or as being unpatentable over Matt, in view of Fox and Kuhlmann, further in view of O'Connell. Claim 12 stands rejected as a new ground of rejection under 35 U.S.C. 103 as being unpatentable over Schussler, in view of Andrew, further in view of Gavrilovich, or as being unpatentable over Matt, in view of Gavrilovich.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the briefs and the answers for the details thereof.

OPINION

After a careful review of the evidence before us, we agree with the Examiner that claims 1, 11 and 13 are anticipated under 35 U.S.C. 102 by Matt, that claim 10 is unpatentable under 35 U.S.C. 103 over Matt and that claim 12 is unpatentable under 35 U.S.C. 103 over Matt, in view of Gavrilovich. Thus, we will

sustain these rejections but we will reverse the rejection of the remaining claims on appeal for the reasons set forth infra.

In regard to the rejection of Appellants' claim 1 under 35 U.S.C. 103 as being unpatentable over Schussler in view of Andrew, we are directed to the Appellants' arguments in the reply brief and the supplement reply brief. Appellants argue that the Examiner's analysis of interpreting the Schussler's system cannot meet the claim 1 limitations. Appellants point out that the Examiner interprets the Schussler subscriber services (telephone 10, telefax 11, telex 12, teletex 13, interactive videotex 15 FM radio 34) as being the Appellants' claim 1 terminal means. Appellants further points out that the Examiner continues to interpret the Schussler's components in an upstream direction from the subscriber services ending with the Schussler local switching station 26 and central transmitting station 28 as reading on the Appellants' distribution means. Appellants argue that this analysis does not read on the Appellants' claim 1 because the claim language is directed for providing integrated narrowband telephony directly to the subscribers. Appellants support their argument based upon the preamble of claim 1 which recites "[a] telecommunications system for providing integrated narrowband telephony and video services to subscribers". Appellants further argue that claim 1 recites a "distributing means for distributing the narrowband telephony signal and the

video channel to subscribers". Appellants assert that the Schussler's local switching station and central transmitting station cannot meet the claim limitations of the Appellants' distributing means for distributing the signals to the subscribers because the Schussler's local switching station and the central transmitting station function is not to provide service to the subscribers at the local plane.

The supplemental Examiner's answer, states "[i]t is unclear to the examiner why examiner's analysis interpreting the upstream user-to-local plane direction is incorrect." The Examiner argues that the interpretation of claim 1 language is proper when given its broadest reasonable meaning.

Our reviewing court stated in In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) that "claims must be interpreted as broadly as their terms reasonably allow." However, upon a reasonable reading the Appellants claim 1, it is clear that the claim is directed to a telecommunication system for providing telephony signals and video services to subscribers via a terminal means for receiving telephony signals from a telephone network and video channels, transmitting these signals on an optical fiber to a distributing means for distribution to the subscribers. Clearly, the claim cannot be reasonable read to be directed to subscribers transmitting signals to a central switching station as viewed by the Examiner. Arguably, the

central switching station could then provide the signals back downstream to a subscriber. However, as pointed out by the Appellants, the central switch function is not to distribute signals to the subscribers but to route these signals to the local plane. From the Appellants' claim 1 language, it is clear that the claim is directed to a downstream transmission of signals from a central terminal to local subscribers.

We note that the Examiner's interpretation of Schussler for the rejection of claim 1 is the same for dependent claims 2 and 4 through 15, we thereby do not find it necessary to discuss in detail the Examiner's rejections of these claims based upon Schussler. Therefore, we will not support the following Examiner's rejections: claims 1, 2, 11 and 13 through 15 under 35 U.S.C. 103 as being unpatentable over Schussler in view of Andrew, claims 4, 5, 6 and 10 under 35 U.S.C. 103 as being unpatentable over Schussler, in view of Andrew, further in view of Fox and Kuhlmann, claims 7, 8 and 9 under 35 U.S.C. 103 as being unpatentable over Schussler in view of Andrew, Fox and Kuhlmann further in view of O'Connell and claim 12 under 35 U.S.C. 103 as being unpatentable over Schussler, in view of Andrew, further in view of Gavrilovich.

In regard to the rejection of Appellants' claims 1, 11 and 13 under 35 U.S.C. 102(b) as being anticipated by Matt, Appellants argue on page 17 of the brief that the Matt

demodulating means and the demultiplexing means are located in the subscriber's premises. In the same paragraph, the Appellants admit that Matt's Figure 10 does show "an intermediary distribution unit 900 that is connected by an optical fiber 112 to a central location 100 and which appears to be connected by electrical lines to a plurality of subscribers premises." With this admission, the Appellants agree that a demodulation is done in the Matt's distribution unit 900 but still contend that the demultiplexing is done on the subscriber's premises.

However, Matt does state in claim 7, on page 5 of the translation that "optical signal[s] [are] transmitted to the vicinity of the subscribers (111), instead of being distributed by optical means, ... is converted (901) into an electrical signal, demodulated (902), and distributed to the subscribers over individual electric lines (K1 to K7) (Fig. 10)." This embodiment is an alternative embodiment of claim 1 on pages 1-2 and Figure 1 in which demodulation and demultiplexing is done on the subscriber's premises. However, Figure 10 clearly shows that the demodulation devices 901 and 902 are located at the central station 900 remote to the subscriber premises.

In reviewing Appellant's claim 1, we do not find the Appellants' claim 1 sets forth the limitation that the demultiplexing means is located remote from the subscriber's premises. Appellants' claim 1 sets forth a demultiplexing means

... and distributing means for distributing the narrowband telephony signals and the video channels to subscribers." This language does not require that the demultiplexing means must be located in a remote location such as the Matt's 900 means shown in Figure 10. The claim language only requires that there is a demultiplexing means and a distributing means. Clearly, Matt discloses a demultiplexing means (122 and 123) in Figure 10 and distributing means (125 and arrow to U). Appellants appear to argue that Claim 1 set forth "subscribers" and the Matt 111 is only one subscriber. However, Matt discloses on page 1 of the translation that reference 111 denotes a group of subscribers. Therefore, Matt discloses all of the Appellants' claim 1 limitations and we will sustain the Examiner's rejection of claim 1, 11 and 13 as being anticipated by Matt under 35 U.S.C. 102 (b).

We note that Appellants did not argue separately the patentability of the dependent claims 11 and 13 in regard to this rejection. Thus, we will treat these claims to stand or fall with the independent claim 1. "Since neither of the parties argues separately the patentability of each of the rejected claims, the dependent claims will stand or fall with independent claims". *In re Sernaker*, 702 F.2d 989, 991, 217 USPQ 1,3, (Fed. Cir. 1983).

Appellants further argue that Matt is inapplicable as a reference in view of ***Lewar Marine Inc. v. Barient Inc.***, 827 F.2d 744, 3 USPQ2d 1766 (Fed. Cir. 1987) which states "that which would literally infringe if later in time anticipates if earlier than the data of invention." This is of little relevance to this case at hand which is *ex parte*.

It is axiomatic that anticipation of a claim under §102 can be found only if the prior art reference discloses every element of the claim. See In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986) and Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). As shown above, Matt does disclose every element of the claim and thereby anticipates the claim under 35 U.S.C. 102.

With regard to the obvious rejection of claims 2, 10, 14 and 15 as being unpatentable over Matt, Appellants argue that Matt fails to disclose the claimed video channel switching means included in the terminal means. The Examiner has not cited any evidence to support his finding, but merely states on page 12 of the answer that it would have been obvious to one of ordinary skill in the art to have a switching means. The Examiner has not relied on any reference in which a "terminal means includes a video channel switch means to be provided to the multiplexing means", "modulating means" and then transmitting on an "optical fiber" as claimed in Appellants' claim 2 depending on claim 1.

We are not inclined to dispense with proof by evidence when the proposition at issue is not supported by common knowledge or capable of unquestionable demonstration because that is the requirement of our reviewing court. *In re Knapp-Monarch Co.*, 196 F.2d 230, 232 132 USPQ 6, 8 (CCPA 1961). *In re Cofer*, 354 F.2d 664, 668 148 USPQ 268, 271-72 (CCPA 1966).

Appellants' claims 4, 5, 6, 7, 8, 9, 14 and 15, all depend from claim 2. Therefore, we will not sustain the following Examiners rejections: claims 2, 14 and 15 rejection under 35 U.S.C. 103 as being unpatentable over Matt, claims 4, 5 and 6 rejection under 35 U.S.C. 103 as being unpatentable over Matt in view of Fox and Kuhlmann, claims 7, 8 and 9 rejection under 35 U.S.C. 103 as being unpatentable over Matt in view of Fox and Kuhlmann further in view of O'Connell.

With regard to the obvious rejection of claim 10 as being unpatentable over Matt, Matt shows in Figure 6 twisted pairs of wires for means for distributing the telephony signals. Matt's claim 7 on page 5 of the translation states that the telephone and video is distributed to the subscriber over individual electric lines as shown in Figure 10. The evidence of the use of the twisted pairs symbol in the Figure 6 connected to the telephone along with the teaching of Matt's claim 7, it would have been obvious to one of ordinary skill in the art to use a twisted pair of metallic wires because it is common knowledge to

use twisted pairs of metallic wires for electric transmission. Similarly, it would have been obvious to one of ordinary skill in the art to use coaxial cable because it is common knowledge to use coaxial cable to transmit electric video channels. Therefore, we will sustain the Examiner's rejection of claim 10 as being obvious over Matt.

In regard to claim 12 rejection under 35 U.S.C. 103 as being unpatentable over Matt in view of Gavrilovich, Gavrilovich teaches in column 5, a power transmission arrangement for use in communication system for transmission of electric power from a central office to remote customer interface units. Appellants' claim 12 recites "a free-standing power service module for providing power to a number of said units." Clearly, Gavrilovich's teaching meets Appellants' claim 12 limitations. Gavrilovich teaches in column 1 that their system is useful in providing power from a central office to remote circuitry with reduced power loss in order to allow the customer circuits to be placed at greater distances without the need of repeaters or other power boosting circuitry. Therefore, because Matt is faced with the problem of providing power to remote customer circuitry, it would have been obvious to one of ordinary skill in the art to use the Gavrilovich system to provided power from the central office 100 to the remote customer circuitry 900 in the Matt system in Figure 10.

Therefore, we agree with the Examiner that claims 1, 11 and 13 are anticipated under 35 U.S.C. 102 by Matt, that claim 10 is unpatentable under 35 U.S.C. 103 over Matt and that claim 12 is unpatentable under 35 U.S.C. 103 over Matt in view of Gavrilovich.

In view of the foregoing, the decision of the Examiner rejecting claims 1, 11 and 13 under 35 U.S.C. 102(b) and claims 10 and 12 under 35 U.S.C. 103 is affirmed, but we reverse the rejection of claims 2, 4 through 9, 14 and 15 under 35 U.S.C. 103.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR 1.136(a).

AFFIRMED-IN-PART

RAYMOND F. CARDILLO, JR.
Administrative Patent Judge)

GARY V. HARKCOM
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